

PHILIP C. OLSSON  
RICHARD L. FRANK  
DAVID F. WEEDA (1948-2001)  
DENNIS R. JOHNSON  
ARTHUR Y. TSIEH  
STEPHEN D. TERMAN  
MARSHALL L. MATZ  
MICHAEL J. O'FLAHERTY  
DAVID L. DURKIN  
BRETT T. SCHWEMER  
TISH E. PAHL  
ROBERT A. HAHN (1958-2016)  
EVAN P. PHELPS  
GARY H. BAISE  
FREDERICK H. BRANDING\*  
BRUCE A. SILVERGLADE  
JOLYDA O. SWAIM  
JONATHAN M. WEINRIEB  
STEWART D. FRIED  
ROGER R. SZEMRAJ  
EDWARD J. FARRELL  
JUR T. STROBOS, M.D.  
ELLIOT BELILOS



**LAW**  
**OLSSON FRANK WEEDA TERMAN MATZ PC**

**THE WATERGATE**  
**600 NEW HAMPSHIRE AVENUE NW**  
**SUITE 500**  
**WASHINGTON, DC 20037**

**(202) 789-1212 • FAX (202) 234-3550**  
**WWW.OFWLAW.COM**

**Elliot Belilos - Principal**  
**Direct (202) 518-6358 / ebelilos@ofwlaw.com**

July 6, 2016

JOHN G. DILLARD  
J. MASON WEEDA\*

*COUNSEL*  
ANSON M. KELLER

*OF COUNSEL*  
KENNETH D. ACKERMAN  
NANCY A. NORD  
DANIEL Q. CALLISTER

*SENIOR POLICY ADVISORS*  
JOHN R. BLOCK  
CHARLES W. STENHOLM  
BARBARA J. MASTERS, D.V.M.  
WILLIAM G. IMBERGAMO  
GARY M. ZIZKA

*SENIOR SCIENCE ADVISOR*  
NINA J. FEDOROFF, PhD

*GOVERNMENT RELATIONS ADVISORS*  
PETER B. MATZ  
EDEN SHIFERAW  
MOLLY S. O'CONNOR

\*PRACTICE WITHIN THE DISTRICT OF COLUMBIA  
IS LIMITED TO MATTERS AND PROCEEDINGS  
BEFORE FEDERAL COURTS AND AGENCIES

**VIA U.S. MAIL AND E-MAIL**

Dr. Abee Boyles, NIEHS/DNTP  
National Institute of Environmental Health Sciences  
National Toxicology Program Division  
P.O. Box 12233  
Mail Drop K2-04  
Research Triangle Park, NC 27709  
[abee.boyles@nih.gov](mailto:abee.boyles@nih.gov)

**Re: Synthetic Turf/Crumb Rubber Research Project**

Dear Dr. Boyles:

We represent a coalition comprised of the Safe Fields Alliance (SFA), the Synthetic Turf Council (STC), the Recycled Rubber Council (RRC) and the Industry Scrap Recycling Institute (ISRI). We are writing to respond to several points raised in the June 15, 2016 NTP Board of Scientific Counselors Meeting. Specifically, we urge the NTP to (1) carefully consider current research related to the safety of crumb rubber (properly weighing the value of both peer-reviewed and non-peer-reviewed research); (2) account for ambient sources of any identified chemicals, by including control samples of air and natural grass/dirt fields near each synthetic turf field and playground sampled; and (3) report any chemicals identified only in proper context with relation to health-based guidelines. We have enclosed a copy of our comments to the Federal Research Action Plan (FRAP), which more fully outline these points.

Notably, during the NTP meeting, one commenter indicated he saw no need for soil sampling because of the variability in soil. We are concerned that this comment was not fully addressed in the Meeting. His comment that "Louisiana soil is different from Massachusetts soil" misses the point of the soil sampling. It is not to determine if any particular soil contains

Letter to Dr. Abbe Boyles  
July 6, 2016  
Page 2



contaminants, but rather whether contaminants potentially found on a turf field are also found on an adjacent grass field. Those controls are essential to ensure that the results are scientifically reliable. Similarly, ambient air sampling is critical to determine whether any chemicals found are properly attributable to the crumb rubber.

As we noted in our comments on the FRAP, any citation of chemicals found to be present in crumb rubber must be described in proper context. For example, if a chemical is found at levels below that which is acceptable for toys or soil, that should be stated clearly so as not to unfairly cause concern amongst the public.

Our coalition supports NTP's efforts toward additional research, but we urge that the research apply the sound scientific principles identified here and in our FRAP comments attached. If our coalition members can assist your research efforts in any way, please let us know.

Sincerely,  
[Signature  
Redacted]

Elliot Belilos

EB:mts  
Enclosure  
cc: Nancy Nord, Esq



May 2, 2016

Mr. Leroy A. Richardson

Information Collection Review Office

Centers for Disease Control and Prevention

1600 Clifton Road, N.E., MS-D74

Atlanta, Georgia 30329

Re: Information Collection Related to Synthetic Turf Fields with Crumb Rubber Infill – Agency for Toxic Substances and Disease Registry – ATSDR-2016-0002

The undersigned organizations provide these comments in response to the notice requesting public comment on “Collections Related to Synthetic Turf Fields with Crumb Rubber Infill.” Specifically, the notice seeks input on proposed and/or continued information collections that will assist the Agency for Toxic Substances and Disease Registry (“ATSDR”) within the Centers for Disease Control and Prevention (“CDC”) and the Environmental Protection Agency (“EPA”) to “conduct two studies to investigate the chemical composition and use of crumb rubber infill in synthetic turf and the potential for exposure to environmental constituents that may result from contact with crumb rubber infill.” Although the information collection request does not specifically reference the *Federal Research Action Plan on Recycled Tire Crumb Used on Playing Fields* (“FRAP”), the notice does request information intended to implement the plan, specifically including comments on the necessity of the proposed collection and ways to enhance the quality, utility and clarity of the collected information. The FRAP provides an overview of the research to be conducted by ATSDR, the EPA and the U.S. Consumer Product Safety Commission (“CPSC”).

We support the research efforts to the extent they are based on sound science and produce meaningful results upon which users of playing fields and playgrounds with recycled rubber can properly assess the risks relative to natural grass fields. To that end, we urge that the FRAP (1) carefully consider current research related to the safety of crumb rubber (properly weighing the value of both peer-reviewed and non-peer-reviewed research); (2) account for ambient sources of any identified chemicals, by including control samples of air and natural grass/dirt fields near each synthetic turf field and playground sampled; (3) report any chemicals identified only in proper context with relation to health-based guidelines.

### **The Undersigned Commenters**

The Synthetic Turf Council (STC) is an industry association formed in 2003 and made up of 212 members that range from large textile manufacturers, to builders and installers, to independent professionals such as architects and engineers. The Safe Fields Alliance (SFA) is composed of three of the largest synthetic sports field businesses in America: FieldTurf, AstroTurf, and Sprinturf. The Recycled Rubber Council (RRC) is made up of companies directly involved in recycling rubber, including that used in making the infill for synthetic turf fields. The Institute of Scrap Recycling Industries, Inc. (ISRI) is a

trade association representing more than 1,600 companies operating at more than 3,500 facilities in the United States and 34 countries worldwide.

### **The FRAP Must Carefully Consider Available Research and Ongoing Research.**

There are more than 90 studies and reports over the past two decades conducted by independent bodies, including academic institutions and government agencies over multiple continents. These studies and reports cover more than 125 fields with different life spans. They investigate toxicity, bioavailability, and multiple exposure pathways, and include consideration of potential chronic health effects.

Many of these studies have been peer reviewed. All studies that used accepted methodologies to evaluate exposure or risk indicated no elevated risk of health effects compared with natural grass fields. While we are aware of one or two published studies (and a few unpublished reports sponsored by advocacy groups) that allege significant health risks associated with recycled rubber, those studies are generally chemical composition studies utilizing total extraction methods and provide no information related to actual chemical exposure or risk. The FRAP must not allow such reports to marginalize the significant body of published credible scientific data.

In addition to the existing published research, we urge the FRAP to consider ongoing independent research like that which is currently underway at Brown University. The *in-vitro* toxicology studies being conducted at Brown University are attempting to determine whether exposure to crumb rubber can transform human cells and thus be a precursor to cancer. In fact, this research specifically addresses the concerns that California OEHHA both has recognized and requested that the National Toxicology Program (“NTP”) consider conducting.<sup>1</sup>

### **The FRAP Must Include Adequate Scientific Controls in its Sampling Methodology.**

Any sampling of recycled rubber from playing fields and playgrounds must be accompanied with parallel sampling from nearby soil from grass fields as well to provide proper scientific controls. In addition, air sampling must be conducted with appropriate upwind and downwind controls. However, it is our understanding that appropriate natural soil control samples are not being contemplated by the FRAP. Sampling controls are important for three reasons.

First, sampling controls would allow the Agencies to identify potential outside sources of chemicals found in the test results. For example, if a chemical of concern were found in both the recycled rubber and the surrounding soil, it could potentially be from sources such as a nearby parking lot or other potential outside exposure points. Failure to utilize sampling controls will compromise the reliability and relevance of uncontrolled findings.

A second reason to apply scientific controls in the sampling is to provide a reference point. Users of synthetic turf sports fields and playgrounds need to be provided the information in context. For example, if a chemical of concern is one that is naturally occurring and is present in soil or grass fields at comparable or higher levels than is found in synthetic turf fields, consumers need to have that useful

---

<sup>1</sup> The letter can be found here: [http://oehha.ca.gov/risk/SyntheticTurfStudies/pdf/OEHHA\\_NTP110915.pdf](http://oehha.ca.gov/risk/SyntheticTurfStudies/pdf/OEHHA_NTP110915.pdf)



information. Failing to provide the information in proper context would be a disservice to the owners and users of the playing fields and playgrounds. While the stated mission of the FRAP is limited to identifying potential health risks associated with recycled rubber infill, that mission cannot be fulfilled in a meaningful way without providing the public information upon which they can determine the risks and the benefits of both natural fields and synthetic fields.

Finally, failing to utilize adequate sampling controls will call into question the validity of the results of the federal research. We note that California OEHHA staff had initially not included control soil sampling in its research, but is reconsidering that position based on comments at a recent Public Meeting of its Synthetic Turf Scientific Advisory Panel (Feb. 8, 2016). See <http://oehha.ca.gov/SyntheticTurf01122016.mp4>.

- 3:18:35. Comments of Nick Lapas, Californians Against Waste (asking the OEHHA panel to reconsider the initial decision not to use control samples – *i.e.*, natural turf and air – in their study)
- 3:28:00. Comments of Michael Peterson, Gradient Consulting, and a consultant to the RRC (Urging the panel to include natural turf samples as a control)
- 3:35:12. The Scientific Advisory Panel discussion after comments from the observers, with several panel members expressing the need for sampling controls.

Sampling controls are a critical component of any scientific sampling plan. If the FRAP fails to include such controls in the research – particularly if California OEHHA is including sampling controls – this will call into question the validity and relevance of the Federal research.

### **The Presence of Chemicals Must Be Reported Only in Context With Regard to Health-based Guidelines.**

Finally, the identification of chemical compounds in recycled rubber must include context, *i.e.*, a baseline below which the presence of those constituents has been determined to present no significant health hazards (*e.g.*, health-based standards for toys). Simply reporting the presence of chemical compounds without regard to whether the levels create any cause for concern, including the bioavailability of those chemicals, ignores sound science and would needlessly create fear and concern for the users of the facilities. Sound science recognizes that *both* natural and synthetic chemicals are harmful *only* if they are actually absorbed in actually harmful amounts. At the very least, if the presence of chemicals found at low levels is reported, the Agencies must provide context to that report by noting (if so) that the chemical compounds are present only at levels below which there is any significant risk. And, the Agencies should note whether such chemicals are also present in natural grass and dirt fields, especially those in urban and suburban settings, where contributions from pollutants deposited from vehicular exhaust, paint chips, and other dusts and debris are common.

Currently, the synthetic turf and crumb rubber industry uses the following strict, health-based guidelines:

1. For heavy metals, crumb rubber is benchmarked against the heavy metal standards used by the very stringent EN71-3 European Union toy standards. Crumb rubber is also certified to comply with the lead standard set by CPSC for children's toys and the lead standard set by the EPA for urban/rural soils.

2. Human health risk assessment models to estimate additional cancer risk from exposure to PAH's via the dermal and ingestion exposure pathways are benchmarked against exposure to background level of PAH's and arsenic in urban and rural soils. Additional, theoretical, lifetime cancer risk-estimates from exposure during recreational uses are found to be smaller than a *de minimis* risk level of one in one million (a standard well below EPA's level of risk)

Reporting on crumb rubber without comparing data to allowable levels in toys or urban/rural soils would provide inconclusive and potentially misleading results.

### **The FRAP Must Consider Benefits and Risks vis-à-vis Alternatives to Recycled Rubber.**

The 12,000 synthetic turf sports fields in use today have a significant positive health impact on communities. Availability during or after rain events increases field play time by a factor of five. Moreover, turf fields offer a lower maintenance and offer other positive environmental benefits, including reductions in water usage, pesticides, herbicides, and fertilizer.

In evaluating the relative risks and benefits of recycled rubber, the environmental benefits of recycled rubber should also be considered. A typical synthetic turf sports field uses recycled rubber from 25,000 tires which may otherwise end up in landfills.

### **Conclusion**

We urge that the Federal Research Action Plan apply sound science, including analyzing all available peer-reviewed research, applying sampling controls from nearby grass fields and air, and providing proper context to the low level presence of chemical compounds, if any, in recycled rubber. Finally, the environmental and health benefits of recycled rubber *vis-à-vis* alternatives must be considered. The undersigned organizations represent multiple industries in various parts of the supply chain: we have spent over a decade studying this issue and are able, willing, and ready to assist the Federal effort in any way possible. Only with sound scientific methodologies can the FRAP achieve results upon which users of recycled rubber surfaces can reasonably rely and make informed decisions as to the relative risks of those surfaces *vis-à-vis* alternatives.

Respectfully,

The Safe Fields Alliance

The Recycled Rubber Council

The Synthetic Turf Council

The Institute of Scrap Recycling Industries, Inc.